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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,534	01/23/2002	Takayuki Toshima	33082M115	3236

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EXAMINER

KORNAKOV, MICHAEL

ART UNIT PAPER NUMBER

1746

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,534

Applicant(s)

TOSHIMA ET AL.

Examiner

Michael Kornakov

Art Unit

1746

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-19 and 35 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/27/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicants amendment and remarks, dated 04/27/2006, have overcome objection to claim 9 and rejections under 35USC 102 (b), imposed in the previous office action and the objection and rejections are withdrawn. Claims 1-19, 35 are pending. Claims 10-19 are withdrawn from consideration as being drawn to non-elected inventions. Claims 1-9, 35 are examined on the merits.

Claim Objections

2. Claims 1, 3 are objected to because of the following informalities: claims 1 and 3 recite "a lower side member connected to a shaft through the holding member". Apparently, a lower side member connected to a shaft, which is put through the holding member is indicated (page 14, lines 3-4 of the instant specification). Appropriate clarification and/or correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5, 8, 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 5 depends on claims 1 or 3 and recites the limitation "the lower side temperature adjusting mechanism". Claim 8 depends on claims 1 or 3 and recites the limitation "said upper side member". Claim 9 depends on claims 1 or 3 and recites the limitation "the upper side member".

There is insufficient antecedent basis for these limitations in the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-9, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al (U.S. 6,431,190) in view of Akimoto (U.S. 5,868,865).

Oka teaches object processing apparatus comprising rotatable retention member 18 (reads on "a holding member", as instantly claimed); vertically movable rear shielding plate 15, having a shaft, which is put through the retention member, the rear shielding plate also including a feed pass 20 with an opening for feeding the processing fluid to a space between an upper surface of the shielding plate and the undersurface of the object 17; vertically movable front shielding plate 11, having a feed pass 19 with an opening for feeding the processing fluid to an upper surface of the object. The rear shielding plate is connected to a heater 115 for adjusting the temperature of the processing fluid supplied through the feed pass of the rear shielding plate (the entire disclosure of Oka and specifically Fig. 1, 6; col. 7, lines 1-42; col. 13, lines 30-32, 52-54).

While teaching raising the rear shielding plate or adjusting the distance between the rear shielding plate and the object, thus providing for vertically movable rear shielding plate, Oka remains silent about a lift mechanism for moving the rear shielding plate. However, it is noted here that such lifting mechanisms for raising different parts of processing apparatuses are conventionally utilized in the art. Thus, Akimoto teaches elevating the cover 71 with elevating mechanism 75 or elevating the chuck 50 with lifting

Art Unit: 1746

mechanism 56. Therefore, one skilled in the art would have found obvious to utilize the appropriate lift mechanism of Akimoto in order to raise the rear shielding plate of Oka with the reasonable expectation of success.

Regarding the specific limitation of claim 3, reciting moving the lower side member to a processing liquid scattering position, it is noted here that the conventional lifting mechanism is fully capable of adjusting the distance between the object and the rear shielding plate, and therefore is fully capable of moving the rear shielding plate a certain distance to a processing liquid scattering position in the teaching of Oka.

With regard to claims 5, 8 and 35, Oka remains silent about a temperature adjusting pass inside the rear shielding plate and about a temperature adjusting mechanism within the front shielding plate. Akimoto teaches importance of maintaining the predetermined temperature of processing solution while treating the upper surface of the wafer. In order to do so, Akimoto provides a heat exchange passage 74 within the upper cover 71, the heat exchange passage being adjacent to processing solution supply nozzle 70 (Fig.2; col.4, lines 1-11, 53-60). Therefore, one skilled in the art motivated by Akimoto would have found obvious to utilize a heat exchange passage in the apparatus of Oka in order to adjust and control the temperature of the processing liquid while treating the upper surface of the object in the apparatus of Oka. The same rationale is applied for providing a temperature adjusting pass inside the rear shielding plate in the apparatus of Oka.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael Kornakov
Primary Examiner
Art Unit 1746

07/07/06